#### **EXHIBIT A**

- 65. An isolated DNA molecule coding for a polypeptide having the ability to bind TNF, wherein said polypeptide is selected from the group consisting of:
  - A) a polypeptide comprising the amino acid sequence:

```
ile
                                                                       his
asp
       ser
              val
                     cys
                            pro
                                   gln
                                          gly
                                                 lys
                                                        tyr
                                                                              pro
                                                                                     gln
asn
       asn
              ser
                     ile
                            cys
                                   cys
                                          thr
                                                 lys
                                                        cys
                                                                his
                                                                       lys
                                                                              gly
                                                                                     thr
tyr
       leu
              tyr
                                                 gly
                                                                       gln
                                                                                     thr
                     asn
                            asp
                                   cys
                                          pro
                                                        pro
                                                                gly
                                                                              asp
                                                                phe
asp
                     glu
                                   glu
                                                                       thr
       cys
              arg
                            cys
                                          ser
                                                 gly
                                                        ser
                                                                              ala
                                                                                     ser
glu
       asn
              his
                     leu
                                   his
                                                 leu
                                                        ser
                                                                              lys
                                                                                     cys
                            arg
                                          cys
                                                                cys
                                                                       ser
arg
       lys
              glu
                     met
                            gly
                                   gln
                                          val
                                                 glu
                                                        ile
                                                                ser
                                                                       ser
                                                                              cys
                                                                                     thr
val
                            thr
                                                                       lys
       asp
              arg
                     asp
                                   val
                                          cys
                                                 gly
                                                        cys
                                                                arg
                                                                              asn
                                                                                     gln
                                          glu
tyr
              his
                                                        leu
                                                                phe
                                                                                     phe
       arg
                     tyr
                            trp
                                   ser
                                                 asn
                                                                       gln
                                                                              cys
              ser
asn
       cys
                     leu
                            cys
                                   leu
                                          asn
                                                 gly
                                                        thr
                                                                val
                                                                       his
                                                                              leu
                                                                                     ser
cys
       gln
              glu
                     lys
                            gln
                                   asn
                                          thr
                                                 val
                                                        cys
                                                                thr
                                                                       cys
                                                                              his
                                                                                     ala
gly
       phe
              phe
                     leu
                                   glu
                                                 glu
                                                                val
                            arg
                                          asn
                                                        cys
                                                                       ser
                                                                              cys
                                                                                     ser
asn
       cys
              lys
                     lys
                            ser
                                   leu
                                          glu
                                                 cys
                                                        thr
                                                                lys
                                                                       leu
                                                                              cys
                                                                                     leu
pro
       gln
              ile
                     glu
                            asn;
```

B) a polypeptide comprising the amino acid sequence:

```
leu
       val
              pro
                     his
                            leu
                                   gly
                                          asp
                                                 arg
                                                        glu
                                                                lys
                                                                       arg
                                                                              asp
                                                                                     ser
                                                                                            val
                                                 his
                                                                                            ile
cys
       pro
              gln
                     gly
                            lys
                                   tyr
                                          ile
                                                        pro
                                                                gln
                                                                       asn
                                                                              asn
                                                                                     ser
cys
       cys
              thr
                     lys
                            cys
                                   his
                                          lys
                                                 gly
                                                        thr
                                                                tyr
                                                                       leu
                                                                                            asp
                                                                              tyr
                                                                                     asn
cys
       pro
              gly
                            gly
                                   gln
                                                 thr
                                                                              glu
                                                                                            glu
                     pro
                                          asp
                                                         asp
                                                                cys
                                                                       arg
                                                                                     cys
ser
       gly
                     phe
                            thr
                                   ala
                                          ser
                                                 glu
                                                         asn
                                                                his
                                                                       leu
                                                                                     his
                                                                                            cys
              ser
                                                                              arg
leu
       ser
              cys
                     ser
                            lys
                                          arg
                                                 lys
                                                        glu
                                                                met
                                                                       gly
                                                                              gln
                                                                                     val
                                                                                            glu
                                   cys
ile
       ser
              ser
                     cys
                            thr
                                   val
                                          asp
                                                 arg
                                                        asp
                                                                thr
                                                                       val
                                                                              cys
                                                                                     gly
                                                                                            cys
arg
       lys
                     gln
                                          his
                                                                                            phe
              asn
                            tyr
                                   arg
                                                 tyr
                                                        trp
                                                                ser
                                                                       glu
                                                                              asn
                                                                                     leu
gln
              phe
                     asn
                                          leu
                                                        leu
                                                                                            his
       cys
                            cys
                                   ser
                                                 cys
                                                                       gly
                                                                              thr
                                                                                     val
                                                                asn
leu
                                                                                            his
       ser
              cys
                     gln
                            glu
                                   lys
                                          gln
                                                 asn
                                                        thr
                                                                val
                                                                       cys
                                                                              thr
                                                                                     cys
                                          glu
ala
              phe
                     phe
                            leu
       gly
                                   arg
                                                 asn
                                                        glu
                                                                cys
                                                                       val
                                                                              ser
                                                                                     cys
                                                                                            ser
asn
              lys
                     lys
                            ser
                                   leu
                                          glu
       cys
                                                 cys
                                                        thr
                                                                lys
                                                                       leu
                                                                              cys
                                                                                     leu
                                                                                            pro
gln
      ile
              glu
                     asn;
```

C) a polypeptide comprising the amino acid sequence:

asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn
asn	ser	ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tvr	leu

tyr	asn	asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg
glu	cys	glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu
arg	his	cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly
gln	val	glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val
cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu
asn	leu	phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly
thr	val	his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys
thr	cys	his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val
ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu
cys	leu	pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser
gly	thr	thr;											

D) a polypeptide comprising the amino acid sequence:

```
leu
       val
                    his
                           leu
                                                                                         val
             pro
                                  gly
                                         asp
                                                arg
                                                       glu
                                                             lys
                                                                                  ser
                                                                    arg
                                                                           asp
cys
       pro
             gln
                    gly
                           lys
                                  tyr
                                         ile
                                                his
                                                      pro
                                                              gln
                                                                    asn
                                                                           asn
                                                                                  ser
                                                                                         ile
             thr
                    lys
                                  his
cys
       cys
                           cys
                                         lys
                                                gly
                                                       thr
                                                             tyr
                                                                    leu
                                                                                         asp
                                                                           tyr
                                                                                  asn
cys
       pro
             gly
                    pro
                           gly
                                  gln
                                         asp
                                                thr
                                                                           glu
                                                                                  cys
                                                                                         glu
                                                       asp
                                                             cys
                                                                    arg
ser
       gly
             ser
                    phe
                           thr
                                  ala
                                         ser
                                                glu
                                                       asn
                                                             his
                                                                    leu
                                                                           arg
                                                                                  his
                                                                                         cys
leu
       ser
                           lys
                                                lys
                                                       glu
                                                                           gln
                                                                                  val
                                                                                         glu
             cys
                    ser
                                  cys
                                         arg
                                                             met
                                                                    gly
ile
                           thr
                                                                    val
       ser
             ser
                    cys
                                  val
                                         asp
                                                arg
                                                       asp
                                                             thr
                                                                           cys
                                                                                  gly
                                                                                         cys
arg
       lys
                    gln
                                         his
                                                                                  leu
                                                                                         phe
             asn
                           tyr
                                  arg
                                                tyr
                                                      trp
                                                             ser
                                                                    glu
                                                                           asn
gln
       cys
             phe
                    asn
                                  ser
                                         leu
                                                      leu
                                                                    gly
                                                                           thr
                                                                                  val
                                                                                         his
                           cys
                                                cys
                                                             asn
leu
                                                                                         his
       ser
             cys
                    gln
                           glu
                                  lys
                                         gln
                                                asn
                                                      thr
                                                             val
                                                                    cys
                                                                           thr
                                                                                  cys
ala
       gly
             phe
                    phe
                           leu
                                  arg
                                         glu
                                                      glu
                                                                                         ser
                                                asn
                                                             cys
                                                                    val
                                                                           ser
                                                                                  cys
asn
      cys
             lys
                    lys
                           ser
                                  leu
                                         glu
                                                cys
                                                      thr
                                                             lys
                                                                    leu
                                                                           cys
                                                                                  leu
                                                                                         pro
gln
      ile
             glu
                    asn
                           val
                                  lys
                                         gly
                                                thr
                                                      glu
                                                             asp
                                                                    ser
                                                                           gly
                                                                                  thr
                                                                                         thr;
```

- E) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one conservative amino acid substitution;
- F) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a glycosylation site;
- G) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a proteolytic cleavage site; and
- H) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a cysteine residue.

- 71. An isolated DNA molecule coding for a polypeptide having the ability to bind TNF selected from the group consisting of:
  - A) a polypeptide comprising the amino acid sequence:

```
val
                                          gln
                                                 gly
                                                                      ile
                                                                              his
                                                                                            gln
met
       asp
              ser
                            cys
                                   pro
                                                        lys
                                                               tyr
                                                                                     pro
                     ile
                                          thr
                                                 lys
                                                        cys
                                                               his
                                                                                     thr
                                                                                            tyr
asn
       asn
              ser
                            cys
                                   cys
                                                                      lys
                                                                              gly
leu
                                          gly
                                                                             thr
       tyr
              asn
                     asp
                            cys
                                   pro
                                                 pro
                                                        gly
                                                               gln
                                                                      asp
                                                                                     asp
                                                                                            cys
       glu
                     glu
                                                               ala
                                                                                            his
arg
              cys
                            ser
                                   gly
                                          ser
                                                 phe
                                                        thr
                                                                      ser
                                                                              glu
                                                                                     asn
leu
              his
       arg
                     cys
                            leu
                                   ser
                                          cys
                                                 ser
                                                        lys
                                                               cys
                                                                              lys
                                                                                     glu
                                                                                            met
                                                                      arg
gly
       gln
              val
                     glu
                            ile
                                   ser
                                          ser
                                                 cys
                                                        thr
                                                               val
                                                                      asp
                                                                                     asp
                                                                                            thr
                                                                              arg
val
                                   lys
                                                 gln
                                                                                            ser
       cys
              gly
                     cys
                            arg
                                          asn
                                                        tyr
                                                               arg
                                                                      his
                                                                              tyr
                                                                                     trp
                                                        cys
glu
       asn
              leu
                     phe
                            gln
                                   cys
                                          phe
                                                 asn
                                                                      leu
                                                                                     leu
                                                                                            asn
                                                               ser
                                                                             cys
gly
       thr
              val
                     his
                            leu
                                   ser
                                          cys
                                                 gln
                                                        glu
                                                               lys
                                                                      gln
                                                                              asn
                                                                                     thr
                                                                                            val
                                          phe
       thr
                     his
                            ala
                                                 phe
                                                                      glu
cys
              cys
                                   gly
                                                        leu
                                                               arg
                                                                              asn
                                                                                     glu
                                                                                            cys
val
                            asn
                                                 lys
                                                                      glu
                                                                                     thr
       ser
              cys
                     ser
                                   cys
                                          lys
                                                        ser
                                                               leu
                                                                             cys
                                                                                            lys
leu
       cys
              leu
                            gln
                                   ile
                                          glu
                                                 asn;
                     pro
```

B) a polypeptide comprising the amino acid sequence:

```
val
                            his
met
       leu
                     pro
                                   leu
                                          gly
                                                                glu
                                                                       lys
                                                 asp
                                                        arg
                                                                              arg
                                                                                     asp
                                                                                            ser
val
                                                        his
       cys
              pro
                     gln
                            gly
                                   lys
                                          tyr
                                                 ile
                                                                pro
                                                                       gln
                                                                              asn
                                                                                     asn
                                                                                            ser
ile
       cys
              cys
                     thr
                            lys
                                   cys
                                          his
                                                 lys
                                                        gly
                                                                thr
                                                                       tyr
                                                                              leu
                                                                                     tyr
                                                                                            asn
asp
       cys
              pro
                     gly
                            pro
                                   gly
                                          gln
                                                 asp
                                                        thr
                                                                       cys
                                                                                     glu
                                                                                            cys
                                                                asp
                                                                              arg
glu
                                   thr
                                          ala
                                                                       his
                                                                                            his
       ser
              gly
                     ser
                            phe
                                                 ser
                                                         glu
                                                                asn
                                                                              leu
                                                                                     arg
                                                                                     gln
cys
       leu
              ser
                     cys
                            ser
                                   lys
                                          cys
                                                 arg
                                                        lys
                                                                glu
                                                                       met
                                                                              gly
                                                                                            val
glu
       ile
                                   thr
              ser
                     ser
                            cys
                                          val
                                                 asp
                                                                asp
                                                                       thr
                                                                              val
                                                                                            gly
                                                        arg
                                                                                     cys
cys
       arg
              lys
                     asn
                            gln
                                   tyr
                                          arg
                                                 his
                                                        tyr
                                                                trp
                                                                       ser
                                                                              glu
                                                                                     asn
                                                                                            leu
phe
       gln
              cys
                     phe
                            asn
                                   cys
                                          ser
                                                 leu
                                                        cys
                                                               leu
                                                                       asn
                                                                              gly
                                                                                     thr
                                                                                            val
his
       leu
              ser
                     cys
                            gln
                                   glu
                                                 gln
                                          lys
                                                         asn
                                                               thr
                                                                       val
                                                                              cys
                                                                                     thr
                                                                                            cys
his
       ala
                            phe
                                                                glu
              gly
                     phe
                                   leu
                                                                              val
                                          arg
                                                 glu
                                                         asn
                                                                       cys
                                                                                     ser
                                                                                            cys
ser
       asn
              cys
                     lys
                            lys
                                   ser
                                          leu
                                                 glu
                                                        cys
                                                               thr
                                                                       lys
                                                                              leu
                                                                                     cys
                                                                                            leu
pro
       gln
              ile
                            asn;
                     glu
```

C) a polypeptide comprising the amino acid sequence:

```
met
       asp
              ser
                     val
                            cys
                                   pro
                                           gln
                                                  gly
                                                         lys
                                                                tyr
                                                                       ile
                                                                              his
                                                                                     pro
                                                                                             gln
asn
       asn
                     ile
                                           thr
              ser
                            cys
                                   cys
                                                  lys
                                                         cys
                                                                his
                                                                       lys
                                                                              gly
                                                                                     thr
                                                                                            tyr
leu
       tyr
              asn
                     asp
                            cys
                                   pro
                                           gly
                                                                gln
                                                                              thr
                                                  pro
                                                         gly
                                                                       asp
                                                                                     asp
                                                                                            cys
arg
       glu
              cys
                     glu
                            ser
                                   gly
                                           ser
                                                  phe
                                                        thr
                                                                ala
                                                                              glu
                                                                                            his
                                                                       ser
                                                                                     asn
leu
       arg
              his
                     cys
                            leu
                                   ser
                                           cys
                                                  ser
                                                         lys
                                                                cys
                                                                              lys
                                                                                     glu
                                                                                             met
                                                                       arg
       gln
gly
              val
                     glu
                            ile
                                   ser
                                           ser
                                                  cys
                                                         thr
                                                                val
                                                                                             thr
                                                                       asp
                                                                              arg
                                                                                     asp
```

val	cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser
glu	asn	leu	phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn
gly	thr	val	his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val
cys	thr	cys	his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys
val	ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys
leu	cys	leu	pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp
ser	gly	thr	thr;										

## D) a polypeptide comprising the amino acid sequence:

```
leu
              val
                            his
                                   leu
                                           gly
met
                     pro
                                                                glu
                                                                       lys
                                                                                             ser
                                                  asp
                                                         arg
                                                                              arg
                                                                                      asp
val
                            gly
                                    lys
                                                  ile
                                                         his
                                                                pro
       cys
              pro
                     gln
                                           tyr
                                                                       gln
                                                                              asn
                                                                                      asn
                                                                                             ser
ile
       cys
              cys
                     thr
                            lys
                                    cys
                                           his
                                                  lys
                                                         gly
                                                                thr
                                                                       tyr
                                                                              leu
                                                                                      tyr
                                                                                             asn
                                           gln
                                                         thr
asp
       cys
              pro
                     gly
                            pro
                                    gly
                                                  asp
                                                                asp
                                                                       cys
                                                                              arg
                                                                                      glu
                                                                                             cys
glu
                                   thr
                                           ala
                                                                       his
                                                                              leu
                                                                                             his
       ser
              gly
                            phe
                                                  ser
                                                         glu
                                                                asn
                     ser
                                                                                      arg
                                                         lys
                                                                                             val
cys
       leu
              ser
                            ser
                                    lys
                                           cys
                                                  arg
                                                                glu
                                                                       met
                                                                              gly
                                                                                      gln
                     cys
glu
      ile
                                    thr
                                                                       thr
                                                                                             gly
              ser
                     ser
                            cys
                                           val
                                                  asp
                                                         arg
                                                                asp
                                                                              val
                                                                                      cys
                                                  his
                                                                              glu
                                                                                             leu
cys
       arg
              lys
                     asn
                            gln
                                   tyr
                                           arg
                                                         tyr
                                                                trp
                                                                       ser
                                                                                      asn
phe
       gln
                                                  leu
                                                                leu
                                                                                      thr
                                                                                             val
              cys
                     phe
                            asn
                                    cys
                                           ser
                                                         cys
                                                                       asn
                                                                              gly
       leu
his
              ser
                     cys
                            gln
                                    glu
                                           lys
                                                  gln
                                                         asn
                                                                thr
                                                                       val
                                                                              cys
                                                                                      thr
                                                                                             cys
his
       ala
                            phe
                                                  glu
              gly
                     phe
                                   leu
                                           arg
                                                         asn
                                                                glu
                                                                       cys
                                                                              val
                                                                                      ser
                                                                                             cys
ser
       asn
                            lys
                                    ser
                                           leu
                                                  glu
                                                                thr
                                                                       lys
                                                                              leu
                                                                                             leu
              cys
                     lys
                                                         cys
                                                                                      cys
       gln
              ile
pro
                     glu
                            asn
                                   val
                                           lys
                                                  gly
                                                         thr
                                                                glu
                                                                       asp
                                                                              ser
                                                                                      gly
                                                                                             thr
thr;
```

## E) a polypeptide comprising the amino acid sequence:

```
met
       gly
              leu
                     ser
                            thr
                                    val
                                                         leu
                                                                leu
                                                                       leu
                                                                                      leu
                                                                                             val
                                           pro
                                                  asp
                                                                              pro
leu
       leu
              glu
                     leu
                            leu
                                    val
                                           gly
                                                  ile
                                                         tyr
                                                                pro
                                                                       ser
                                                                              gly
                                                                                      val
                                                                                             ile
gly
       leu
              val
                            his
                                    leu
                                                         arg
                     pro
                                           gly
                                                                glu
                                                                       lys
                                                                                             ser
                                                  asp
                                                                              arg
                                                                                      asp
val
       cys
              pro
                     gln
                            gly
                                   lys
                                           tyr
                                                  ile
                                                         his
                                                                pro
                                                                       gln
                                                                                      asn
                                                                                             ser
                                                                              asn
ile
                     thr
                            lys
                                           his
                                                         gly
                                                                thr
       cys
              cys
                                    cys
                                                  lys
                                                                       tyr
                                                                              leu
                                                                                      tyr
                                                                                             asn
asp
       cys
              pro
                     gly
                            pro
                                    gly
                                           gln
                                                  asp
                                                         thr
                                                                       cys
                                                                              arg
                                                                                      glu
                                                                                             cys
                                                                asp
glu
       ser
              gly
                            phe
                                    thr
                                           ala
                                                  ser
                                                                       his
                                                                              leu
                                                                                             his
                     ser
                                                         glu
                                                                asn
                                                                                      arg
cys
       leu
              ser
                     cys
                            ser
                                    lys
                                           cys
                                                  arg
                                                         lys
                                                                glu
                                                                       met
                                                                              gly
                                                                                      gln
                                                                                             val
glu
       ile
                                    thr
              ser
                     ser
                            cys
                                           val
                                                                       thr
                                                                              val
                                                                                             gly
                                                  asp
                                                         arg
                                                                asp
                                                                                      cys
cys
       arg
              lys
                            gln
                                    tyr
                                                  his
                                                                              glu
                                                                                             leu
                     asn
                                           arg
                                                         tyr
                                                                trp
                                                                       ser
                                                                                      asn
phe
       gln
              cys
                     phe
                            asn
                                    cys
                                           ser
                                                  leu
                                                         cys
                                                                leu
                                                                       asn
                                                                              gly
                                                                                      thr
                                                                                             val
his
       leu
              ser
                     cys
                            gln
                                   glu
                                           lys
                                                  gln
                                                         asn
                                                                thr
                                                                       val
                                                                                      thr
                                                                              cys
                                                                                             cys
his
       ala
              gly
                     phe
                            phe
                                   leu
                                                  glu
                                                                glu
                                           arg
                                                         asn
                                                                              val
                                                                       cys
                                                                                      ser
                                                                                             cys
ser
       asn
              cys
                     lys
                            lys
                                    ser
                                           leu
                                                  glu
                                                         cys
                                                                thr
                                                                       lys
                                                                              leu
                                                                                      cys
                                                                                             leu
       gln
              ile
pro
                     glu
                            asn;
```

## F) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro	leu	val
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro thr;	gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser	gly	thr

# G) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro
leu	val	leu	leu	glu	leu	leu	val	gly	ile	tyr	pro
ser	gly	val	ile	gly	asp	ser	val	cys	pro	gln	gly
lys	tyr	ile	his	pro	gln	asn	asn	ser	ile	cys	cys
thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn	asp
cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu
cys	glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his
leu	arg	his	cys	leu	ser	cys	ser	lys	cys	arg	lys
glu	met	gly	gln	val	glu	ile	ser	ser	cys	thr	val
asp	arg	asp	thr	val	cys	gly	cys	arg	lys	asn	gln
tyr	arg	his	tyr	trp	ser	glu	asn	leu	phe	gln	cys
phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val	his
leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr
cys	his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys
val	ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys
thr	lys	leu	cys	leu	pro	gln	ile	glu	asn;		-

# H) a polypeptide comprising the amino acid sequence:

				thr		-	-				-		
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln
asn	asn	ser	ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr

leu	tyr	asn	asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys
arg	glu	cys	glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his
leu	arg	his	cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met
gly	gln	val	glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr
val	cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser
glu	asn	leu	phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn
gly	thr	val	his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val
cys	thr	cys	his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys
val	ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys
leu	cys	leu	pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp
ser	gly	thr	thr;										

# I) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro	leu	val
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser	gly	thr
thr	val	leu	leu	pro	leu	val	ile	phe	phe	gly	leu	cys	leu
leu	ser	leu	leu	phe	ile	gly	leu	met	tyr	arg	tyr	gln	arg
trp	lys	ser	lys	leu	tyr	ser	ile	val	cys	gly	lys	ser	thr
pro	glu	lys	glu	gly	glu	leu	glu	gly	thr	thr	thr	lys	pro
leu	ala	pro	asn	pro	ser	phe	ser	pro	thr	pro	gly	phe	thr
pro	thr	leu	gly	phe	ser	pro	val	pro	ser	ser	thr	phe	thr
ser	ser	ser	thr	tyr	thr	pro	gly	asp	cys	pro	asn	phe	ala
ala	pro	arg	arg	glu	val	ala	pro	pro	tyr	gln	gly	ala	asp
pro	ile	leu	ala	thr	ala	leu	ala	ser	asp	pro	ile	pro	asn
pro	leu	gln	lys	trp	glu	asp	ser	ala	his	lys	pro	gln	ser
leu	asp	thr	asp	asp	pro	ala	thr	leu	tyr	ala	val	val	glu
asn	val	pro	pro	leu	arg	trp	lys	glu	phe	val	arg	arg	leu
gly	leu	ser	asp	his	glu	ile	asp	'arg	leu	glu	leu	gln	asn
gly	arg	cys	leu	arg	glu	ala	gln	tyr	ser	met	leu	ala	thr
trp	arg	arg	arg	thr	pro	arg	arg	glu	ala	thr	leu	glu	leu
leu	gly	arg	val	leu	arg	asp	met	asp	leu	leu	gly	cys	leu

ile leu glu asp glu glu ala leu pro ala ala pro cys gly pro ala leu leu pro ser arg;

- J) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one conservative amino acid substitution;
- K) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one amino acid substitution at a glycosylation site;
- L) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one amino acid substitution at a proteolytic cleavage site; and
- M) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one amino acid substitution at a cysteine residue.
- 74. An isolated DNA molecule, wherein said DNA is selected from the group consisting of:
  - A) a DNA molecule comprising the sequence:

CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAA CAG AAC CAG TAC CGG GAG AAA CAG AAC CAG TGC TTC TCC TGC CAG GAG AAA CAG AAC CAG TTC TTC TTC TGC CAG GAG AAA CAG AAC CAG TTC TTC TTC TGC CAG GAG AAA CAG AAC CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACC AGG TTG TGC CTG CAG ATT GAG AAT;

B) a DNA molecule comprising the sequence:

CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAA CAG AAC ACC GTG TGC ACC CTC TCC TGC CAG GAG AAA CAG AAA CAG AAC ACC GTG TGC ACC TTC TCC TGC CAG GAG AAA AAC CTT TTC CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACC ACA;

### C) a DNA molecule comprising the sequence:

GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CAG GAG AAA CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTC TTT CTA AGA AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT;

#### D) a DNA molecule comprising the sequence:

GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TCC AAT TGC AAT TGC AGC AGC AAC CTC TGC CAT TGC CAG GAG AAC CTC TGC CAT

GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA;

- E) a DNA molecule comprising the sequence of A, B, C or D encoding at least one conservative amino acid substitution;
- F) a DNA molecule comprising the sequence of A, B, C or D encoding at least one amino acid substitution at a glycosylation site;
- G) a DNA molecule comprising the sequence of A, B, C or D encoding at least one amino acid substitution at a proteolytic cleavage site; and
- H) a DNA molecule comprising the sequence of A, B, C or D encoding at least one amino acid substitution at a cysteine residue.
- 75. An isolated DNA molecule coding for a polypeptide having the ability to bind to TNF, wherein said DNA coding said polypeptide is selected from the group consisting of:
  - A) a DNA molecule comprising the sequence:

ATG CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TGC TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC CAG TGC TGC AGG AAA CAG AAC CAG TAC TTC TTT CTA AGA AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACC AGG TTG TGC CTA CCC CAG ATT GAG AAT;

B) a DNA molecule comprising the sequence:

ATG CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AGT GAC CTC TGC CTC AGT CAC CTC TGC CAG GAG AAA CAG AAC CAG TAC CAG GAG AAA CAG AAA CAG AAC ACC GTG TGC ACC CTC TCC TGC CAG GAG AAA AAC CAG TGC TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TTT TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACC GTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA;

### C) a DNA molecule comprising the sequence:

ATG GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TCC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC AGC TGC AGC AGC CTC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AAC TGT AAG AAA AGC CTG GAG TGC ACC ACG TGC CAT CCC CAG ATT GAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT;

#### D) a DNA molecule comprising the sequence:

ATG GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC

TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA;

### E) a DNA molecule comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT;

#### F) a DNA molecule comprising the sequence:

AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA;

### G) a DNA molecule comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT;

#### H) a DNA molecule comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA:

## I) a DNA molecule comprising the sequence:

```
ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG
GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG
GTT ATT GGA CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG
AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT
CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA
ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT
ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT
TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA
TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC
ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC
CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC
TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC
TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT
GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT
AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC
CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA
GGC ACC ACA GTG CTG TTG CCC CTG GTC ATT TTC TTT GGT
CTT TGC CTT TTA TCC CTC CTC TTC ATT GGT TTA ATG TAT
CGC TAC CAA CGG TGG AAG TCC AAG CTC TAC TCC ATT GTT
TGT GGG AAA TCG ACA CCT GAA AAA GAG GGG GAG CTT GAA
GGA ACT ACT ACT AAG CCC CTG GCC CCA AAC CCA AGC TTC
AGT CCC ACT CCA GGC TTC ACC CCC ACC CTG GGC TTC AGT
CCC GTG CCC AGT TCC ACC TTC ACC TCC AGC TCC ACC TAT
ACC CCC GGT GAC TGT CCC AAC TTT GCG GCT CCC CGC AGA
GAG GTG GCA CCA CCC TAT CAG GGG GCT GAC CCC ATC CTT
GCG ACA GCC CTC GCC TCC GAC CCC ATC CCC AAC CCC CTT
CAG AAG TGG GAG GAC AGC GCC CAC AAG CCA CAG AGC CTA
GAC ACT GAT GAC CCC GCG ACG CTG TAC GCC GTG GTG GAG
AAC GTG CCC CCG TTG CGC TGG AAG GAA TTC GTG CGG CGC
CTA GGG CTG AGC GAC CAC GAG ATC GAT CGG CTG GAG CTG
CAG AAC GGG CGC TGC CTG CGC GAG GCG CAA TAC AGC ATG
CTG GCG ACC TGG AGG CGG CGC ACG CCG CGG CGC GAG GCC
ACG CTG GAG CTG CTG GGA CGC GTG CTC CGC GAC ATG GAC
CTG CTG GGC TGC CTG GAG GAC ATC GAG GAG GCG CTT TGC
GGC CCC GCC GCC CTC CCG CCC GCG CCC AGT CTT CTC AGA;
```

- J) a DNA molecule comprising the sequence of A, B, C, D, E, F, G, H or I encoding at least one conservative amino acid substitution;
- K) a DNA molecule comprising the sequence of A, B, C, D, E, F, G, H or I encoding at least one amino acid substitution at a glycosylation site;

- L) a DNA molecule comprising the sequence of A, B, C, D, E, F, G, H or I encoding at least one amino acid substitution at a proteolytic cleavage site; and
- M) a DNA molecule comprising the sequence of A, B, C, D, E, F, G, H or I encoding at least one amino acid substitution at a cysteine residue.
- 76. A recombinant host cell containing a recombinant DNA molecule comprising a DNA coding for a polypeptide having the ability to bind TNF selected from the group consisting of:
  - A) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro	leu	val
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser	gly	thr
thr	val	leu	leu	pro	leu	val	ile	phe	phe	gly	leu	cys	leu
leu	ser	leu	leu	phe	ile	gly	leu	met	tyr	arg	tyr	gln	arg
trp	lys	ser	lys	leu	tyr	ser	ile	val	cys	gly	lys	ser	thr
pro	glu	lys	glu	gly	glu	leu	glu	gly	thr	thr	thr	lys	pro
leu	ala	pro	asn	pro	ser	phe	ser	pro	thr	pro	gly	phe	thr
pro	thr	leu	gly	phe	ser	pro	val	pro	ser	ser	thr	phe	thr
ser	ser	ser	thr	tyr	thr	pro	gly	asp	cys	pro	asn	phe	ala
ala	pro	arg	arg	glu	val	ala	pro	pro	tyr	gln	gly	ala	asp
pro	ile	leu	ala	thr	ala	leu	ala	ser	asp	pro	ile	pro	asn
pro	leu	gln	lys	trp	glu	asp	ser	ala	his	lys	pro	gln	ser
leu	asp	thr	asp	asp	pro	ala	thr	leu	tyr	ala	val	val	glu
asn	val	pro	pro	leu	arg	trp	lys	glu	phe	val	arg	arg	leu
gly	leu	ser	asp	his	glu	ile	asp	arg	leu	glu	leu	gln	asn
gly	arg	cys	leu	arg	glu	ala	gln	tyr	ser	met	leu	ala	thr
trp	arg	arg	arg	thr	pro	arg	arg	glu	ala	thr	leu	glu	leu

leu	gly	arg	val	leu	arg	asp	met	asp	leu	leu	gly	cys	leu
glu	asp	ile	glu	glu	ala	leu	cys	gly	pro	ala	ala	leu	pro
pro	ala	pro	ser	leu	leu	arg;							

B) a polypeptide comprising the amino acid sequence:

```
val
                                  gln
                                         gly
                                                lys
                                                       tyr
                                                              ile
                                                                    his
                                                                           pro
                                                                                  gln
                                                                                         asn
asp
      ser
                    cys
                           pro
             ile
                                  thr
                                                                           thr
                                                                                  tyr
                                                                                         leu
                           cys
                                         lys
                                                cys
                                                       his
                                                              lys
                                                                    gly
asn
      ser
                    cys
                                                gly
                                                       gln
                                                                    thr
                                                                                  cys
tyr
      asn
             asp
                    cys
                           pro
                                  gly
                                         pro
                                                              asp
                                                                           asp
                                                                                         arg
glu
      cys
             glu
                    ser
                           gly
                                  ser
                                         phe
                                                thr
                                                       ala
                                                              ser
                                                                    glu
                                                                           asn
                                                                                  his
                                                                                         leu
      his
                    leu
                                         ser
                                                lys
                                                                    lys
                                                                           glu
                                                                                  met
                                                                                         gly
arg
             cys
                           ser
                                  cys
                                                       cys
                                                              arg
gln
             glu
                    ile
                                                thr
                                                       val
                                                                                  thr
                                                                                         val
      val
                           ser
                                  ser
                                         cys
                                                              asp
                                                                     arg
                                                                           asp
cys
      gly
             cys
                    arg
                           lys
                                  asn
                                         gln
                                                tyr
                                                       arg
                                                              his
                                                                    tyr
                                                                           trp
                                                                                  ser
                                                                                         glu
      leu
                    gln
                                  phe
                                         asn
                                                              leu
                                                                           leu
                                                                                         gly
asn
             phe
                           cys
                                                cys
                                                       ser
                                                                    cys
                                                                                  asn
thr
      val
             his
                    leu
                                         gln
                                                glu
                                                       lys
                                                              gln
                                                                     asn
                                                                           thr
                                                                                  val
                                                                                         cys
                           ser
                                  cys
thr
      cys
             his
                    ala
                                  phe
                                         phe
                                                leu
                                                       arg
                                                              glu
                                                                     asn
                                                                           glu
                                                                                  cys
                                                                                         val
                           gly
                                                                           thr
                                                                                  lys
                                         lys
                                                       leu
                                                              glu
                                                                     cys
                                                                                         leu
ser
      cys
             ser
                     asn
                           cys
                                  lys
                                                ser
      leu
                    gln
                           ile
                                  glu
cys
             pro
                                         asn;
```

- C) a polypeptide comprising the amino acid sequence of A or B with at least one conservative amino acid substitution;
- D) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a glycosylation site;
- E) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a proteolytic cleavage site; and
- F) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a cysteine residue.
  - 77. A recombinant host cell according to claim 76, which is a mammalian cell.
- 78. A process for preparing a recombinant host cell containing a polypeptide having TNF inhibitory activity comprising producing the polypeptide in a recombinant host cell according to claim 76, under suitable conditions to express the DNA molecule contained therein to produce the polypeptide.

- 79. A process according to claim 78, wherein said host cell is a prokaryotic cell.
- 80. A process according to claim 79, wherein said host cell is *E. coli*.
- 81. A process according to claim 78, wherein said host cell is a eukaryotic cell.
- 82. A process according to claim 81, wherein said host cell is a mammalian cell.
- 83. A process according to claim 82, wherein said host cell is a Chinese Hamster Ovary cell.
  - 84. A process according to claim 82, wherein said host cell is a COS cell.
- 85. A process according to claim 78, wherein the DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having TNF inhibitory activity, operatively linked to a DNA molecule coding for a polypeptide having the ability to bind TNF.
- 86. A process according to claim 78, wherein the host cell is grown under suitable nutrient conditions to amplify the DNA molecule.
- 87. An isolated DNA molecule wherein said DNA comprises a sequence selected from the group consisting of:

A)

R<sup>2</sup> GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AAT TGC AAT TGC AGC CTC AAT GGG ACC GTG CAC CTC

TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT,

wherein R<sup>2</sup> is absent or is a DNA comprising a sequence coding for a polypeptide which can be cleaved *in vivo*;

- B) a fragment or degenerate variant of the polypeptide of A;
- C) a DNA molecule comprising the sequence of A or B encoding at least one conservative amino acid substitution;
- D) a DNA molecule comprising the sequence of A or B encoding at least one amino acid substitution at a glycosylation site;
- E) a DNA molecule comprising the sequence of A or B encoding at least one amino acid substitution at a proteolytic cleavage site; and
- F) a DNA molecule comprising the sequence of A or B encoding at least one amino acid substitution at a cysteine residue.
- 88. An isolated DNA molecule according to claim 87, wherein R<sup>2</sup> is a DNA molecule comprising a sequence which codes entirely or partly for a signal sequence.
- 89. An isolated DNA molecule according to claim 87, wherein R<sup>2</sup> is a DNA molecule comprising the sequence CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA or a fragment thereof.
- 90. An isolated DNA molecule according to claim 88, wherein R<sup>2</sup> is a DNA molecule comprising the sequence R<sup>3</sup> CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA, wherein R<sup>3</sup> is a DNA molecule coding for a signal peptide, or a fragment thereof.

91. An isolated DNA molecule according to claim 90, wherein R<sup>3</sup> is a DNA molecule comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA, or a fragment thereof.

- 92. A nucleic acid which hybridizes with DNA complementary to the DNA defined in claim 87 under conditions of low stringency such that the nucleic acid is useful as a hybridization probe to detect DNA encoding the polypeptide of A or B.
- 93. An isolated DNA molecule, which is replicable in prokaryotic or eukaryotic host organisms, wherein said DNA molecule contains expression control sequences functionally linked to the DNA molecule defined in claim 87, or a degenerate variant or a fragment thereof.
- 94. A process for preparing a recombinant TNF receptor protein, comprising cultivating the host cell of claim 113 and isolating the expressed protein.
- 95. An isolated DNA molecule coding for a polypeptide selected from the group consisting of:
  - A) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro
leu	val	leu	leu	glu	leu	leu	val	gly	ile	tyr	pro
ser	gly	val	ile	gly	leu	val	pro	his	leu	gly	asp
arg	glu	lys	arg	asp	ser	val	cys	pro	gln	gly	lys
tyr	ile	his	pro	gln	asn	asn	ser	ile	cys	cys	thr
lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn	asp	cys
pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu
arg	his	cys	leu	ser	cys	ser	lys	cys	arg	lys	glu
met	gly	gln	val	glu	ile	ser	ser	cys	thr	val	asp
arg	asp	thr	val	cys	gly	cys	arg	lys	asn	gln	tyr
arg	his	tyr	trp	ser	glu	asn	leu	phe	gln	cys	phe
asn	cys	ser	leu	cys	leu	asn	gly	thr	val	his	leu

ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val
ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys	thr
lys	leu	cys	leu	pro	gln	ile	glu	asn	val	lys	gly
thr	glu	asp	ser	gly	thr	thr	val	leu	leu	pro	leu
val	ile	phe	phe	gly	leu	cys	leu	leu	ser	leu	leu
phe	ile	gly	leu	met	tyr	arg	tyr	gln	arg	trp	lys
ser	lys	leu	tyr	ser	ile	val	cys	gly	lys	ser	thr
pro	glu	lys	glu	gly	glu	leu	glu	gly	thr	thr	thr
lys	pro	leu	ala	pro	asn	pro	ser	phe	ser	pro	thr
pro	gly	phe	thr	pro	thr	leu	gly	phe	ser	pro	val
pro	ser	ser	thr	phe	thr	ser	ser	ser	thr	tyr	thr
pro	gly	asp	cys	pro	asn	phe	ala	ala	pro	arg	arg
glu	val	ala	pro	pro	tyr	gln	gly	ala	asp	pro	ile
leu	ala	thr	ala	leu	ala	ser	asp	pro	ile	pro	asn
pro	leu	gln	lys	trp	glu	asp	ser	ala	his	lys	pro
gln	ser	leu	asp	thr	asp	asp	pro	ala	thr	leu	tyr
ala	val	val	glu	asn	val	pro	pro	leu	arg	trp	lys
glu	phe	val	arg	arg	leu	gly	leu	ser	asp	his	glu
ile	asp	arg	leu	glu	leu	gln	asn	gly	arg	cys	leu
arg	glu	ala	gln	tyr	ser	met	leu	ala	thr	trp	arg
arg	arg	thr	pro	arg	arg	glu	ala	thr	leu	glu	leu
leu	gly	arg	val	leu	arg	asp	met	asp	leu	leu	gly
cys	leu	glu	asp	ile	glu	glu	ala	leu	cys	gly	pro
ala	ala	leu	pro	pro	ala	pro	ser	leu	leu	arg;	

# B) a polypeptide comprising the amino acid sequence:

asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his	pro
gln	asn	asn	ser	ile	cys	cys	thr	lys	cys	his	lys
gly	thr	tyr	leu	tyr	asn	asp	cys	pro	gly	pro	gly
gln	asp	thr	asp	cys	arg	glu	cys	glu	ser	gly	ser
phe	thr	ala	ser	glu	asn	his	leu	arg	his	cys	leu
ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val
cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp
ser	glu	asn	leu	phe	gln	cys	phe	asn	cys	ser	leu
cys	leu	asn	gly	thr	val	his	leu	ser	cys	gln	glu
lys	gln	asn	thr	val	cys	thr	cys	his	ala	gly	phe
phe	leu	arg	glu	asn	glu	cys	val	ser	cys	ser	asn
cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn:							

- C) a fragment of A or B complementary to the DNA encoding the polypeptide of A or B and is useful as a hybridization probe to detect the DNA encoding the polypeptide of A or B;
- D) a polypeptide comprising the amino acid sequence of A, B or C with at least one conservative amino acid substitution;
- E) a polypeptide comprising the amino acid sequence of A, B or C with at least one amino acid substitution at a glycosylation site;
- F) a polypeptide comprising the amino acid sequence of A, B or C with at least one amino acid substitution at a proteolytic cleavage site; and
- G) a polypeptide comprising the amino acid sequence of A, B or C with at least one amino acid substitution at a cysteine residue.
- 96. A DNA according to claim 95, wherein said polypeptide is selected from the group consisting of:
  - A) a polypeptide comprising the amino acid sequence:

$R^2$	asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his
pro	gln	asn	asn	ser	ile	cys	cys	thr	lys	cys	his
lys	gly	thr	tyr	leu	tyr	asn	asp	cys	pro	gly	pro
gly	gln	asp	thr	asp	cys	arg	glu	cys	glu	ser	gly
ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his	cys
leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln
val	glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr
val	cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr
trp	ser	glu	asn	leu	phe	gln	cys	phe	asn	cys	ser
leu	cys	leu	asn	gly	thr	val	his	leu	ser	cys	gln
glu	lys	gln	asn	thr	val	cys	thr	cys	his	ala	gly
phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys	ser
asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys
leu	pro	gln	ile	glu	asn,						•

wherein R<sup>2</sup> is absent or is a polypeptide which can be cleaved in vivo;

. . .

- B) a fragment or functional derivative of the polypeptide of A which binds TNF;
- C) a polypeptide comprising the amino acid sequence of A or B with at least one conservative amino acid substitution;
- D) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a glycosylation site;
- E) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a proteolytic cleavage site; and
- F) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a cysteine residue.
- 97. A DNA according to claim 96, wherein said polypeptide includes at least one additional amino acid at the amino-terminus, at the carboxyl-terminus, or at both the amino-terminus and at the carboxyl-terminus.
- 98. A DNA according to claim 97, wherein said polypeptide includes at least one additional amino acid at the amino-terminus and at the carboxyl-terminus.
- 99. A DNA according to claim 97, wherein said polypeptide includes at least one additional amino acid at the amino-terminus.
- 100. A DNA according to claim 99, wherein said polypeptide includes a methionine at the amino-terminus.
- 101. A DNA according to claim 97, wherein said polypeptide includes at least one additional amino acid at the carboxyl-terminus.

, , .

- 102. A nucleic acid that hybridizes to a DNA complementary to the DNA defined in claim 96 under conditions of low stringency such that the nucleic acid is useful as a hybridization probe to detect DNA encoding the polypeptide of A or B.
- 103. A vector comprising a DNA molecule coding for a TNF binding protein which binds TNF.
  - 104. A vector comprising a DNA molecule defined in claim 96.
- 105. A vector according to claim 104, which is replicable in a prokaryotic or a eukaryotic host cell.
  - 106. A vector according to claim 105, which is replicable in a prokaryotic cell.
- 107. A vector according to claim 106, wherein said DNA molecule encodes ATG at the amino-terminus of the peptide.
  - 108. A vector according to claim 106, which is replicable in Escherichia coli.
  - 109. A vector according to claim 105, which is replicable in a eukaryotic cell.
  - 110. A vector according to claim 109, which is replicable in a mammalian cell.
- 111. A vector according to claim 110, which is replicable in a Chinese Hamster Ovary cell.
  - 112. A vector according to claim 110, which is replicable in a COS cell.
  - 113. A recombinant host cell containing a DNA molecule according to claim 97.
  - 114. A host cell according to claim 113, which is a prokaryotic cell.

. . .

- 115. A host cell according to claim 114, which is Escherichia coli.
- 116. A host cell according to claim 113, which is a eukaryotic cell.
- 117. A host cell according to claim 116, which is a mammalian cell.
- 118. A host cell according to claim 117, which is a Chinese Hamster Ovary cell.
- 119. A host cell according to claim 117, which is a COS cell.
- 120. A recombinant host cell according to claim 76, wherein the DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having the ability to bind TNF, operatively linked to a DNA molecule coding for a polypeptide having the ability to bind TNF.
- 121. A process for preparing a polypeptide having the ability to bind TNF comprising producing the polypeptide in a recombinant host cell according to claim 120 under suitable conditions to express the DNA molecule contained therein to produce the polypeptide, and recovering the polypeptide.
- 122. A process for preparing a polypeptide having the ability to bind TNF comprising producing the polypeptide in a recombinant host cell according to claim 113 under suitable conditions to express the DNA molecule contained therein to produce the polypeptide, and recovering the polypeptide.
- 123. A process according to claim 122, further comprising combining the recovered recombinant polypeptide with a pharmaceutically acceptable carrier to form a pharmaceutical composition.

. . .

- 124. A process according to claim 122, further comprising chemically derivatizing the recovered recombinant polypeptide.
- 125. A process according to claim 124, further comprising combining the chemically derivatized polypeptide with a pharmaceutically acceptable carrier to form a pharmaceutical composition.
- 126. A process according to claim 122, wherein the isolated DNA molecule is contained in an expression vector.
- 127. An isolated DNA molecule according to one of claims 65, 71, 74, 75, 87 or 95, wherein said polypeptide includes at least one additional amino acid at the amino-terminus, at the carboxyl-terminus, or at both the amino-terminus and at the carboxyl-terminus.
- 128. An isolated DNA molecule according to claim 127, wherein said polypeptide includes at least one additional amino acid at the amino-terminus and at the carboxyl-terminus.
- 129. An isolated DNA molecule according to claim 127, wherein said polypeptide includes at least one additional amino acid at the amino-terminus.
- 130. An isolated DNA molecule according to claim 129, wherein said polypeptide includes a methionine at the amino-terminus.
- 131. An isolated DNA molecule according to claim 127, wherein said polypeptide includes at least one additional amino acid at the carboxyl-terminus.
- 132. An isolated DNA molecule according to claim 65, 71, 74, 75, 87, 95 or 96, wherein said polypeptide includes a methionine at the amino-terminus and said amino acid substitution is at a glycosylation site.

- 133. An isolated DNA molecule according to claim 65, 71, 74, 75, 87, 95 or 96, wherein said polypeptide includes an amino acid substitution at a glycosylation site.
- 134. An isolated DNA molecule coding for a polypeptide having the ability to bind TNF, wherein said polypeptide comprises the amino acid sequence:

```
ile
                                                                     his
                                                                                  gln
asp
       ser
             val
                    cys
                           pro
                                  gln
                                         gly
                                                lys
                                                       tyr
                                                                            pro
asn
       asn
             ser
                    ile
                           cys
                                  cys
                                         thr
                                                lys
                                                       cys
                                                              his
                                                                     lys
                                                                            gly
                                                                                  thr
      leu
tyr
             tyr
                    asn
                           asp
                                  cys
                                         pro
                                                gly
                                                       pro
                                                              gly
                                                                     gln
                                                                            asp
                                                                                  thr
                                  glu
                                                              phe
                                                                     thr
asp
                    glu
                           cys
                                         ser
                                                gly
                                                       ser
                                                                            ala
                                                                                  ser
       cys
             arg
                    leu
glu
       asn
             his
                           arg
                                  his
                                         cys
                                                leu
                                                       ser
                                                              cys
                                                                     ser
                                                                            lys
                                                                                  cys
                                         val
                                                glu
                                                       ile
                                                                                  thr
arg
      lys
             glu
                    met
                           gly
                                  gln
                                                              ser
                                                                     ser
                                                                            cys
val
                           thr
                                  val
                                                gly
                                                                     lys
                                                                            asn
                                                                                  gln
       asp
             arg
                    asp
                                         cys
                                                       cys
                                                              arg
tyr
             his
                    tyr
                                         glu
                                                asn
                                                       leu
                                                              phe
                                                                     gln
                                                                            cys
                                                                                  phe
       arg
                           trp
                                  ser
asn
             ser
                    leu
                                  leu
                                         asn
                                                gly
                                                       thr
                                                              val
                                                                     his
                                                                            leu
                                                                                  ser
       cys
                           cys
cys
       gln
             glu
                    lys
                           gln
                                  asn
                                         thr
                                                val
                                                              thr
                                                                            his
                                                                                  ala
                                                       cys
                                                                     cys
gly
      phe
             phe
                    leu
                                  glu
                                         asn
                                                glu
                                                       cys
                                                              val
                                                                     ser
                                                                            cys
                                                                                  ser
                           arg
             lys
                    lys
                                  leu
                                         glu
                                                              lys
                                                                     leu
                                                                                  leu
asn
       cys
                           ser
                                                cys
                                                       thr
                                                                            cys
       gln
             ile
pro
                    glu
                           asn.
```

- 135. An isolated DNA molecule according to claim 134, wherein said polypeptide includes a methionine at the amino-terminus.
- 136. An isolated DNA molecule coding for a polypeptide having the ability to bind TNF, wherein said polypeptide comprises the amino acid sequence:

```
val
                                                              ile
                                                                    his
asp
       ser
                    cys
                           pro
                                  gln
                                         gly
                                                lys
                                                       tyr
                                                                           pro
                                                                                  gln
asn
       asn
             ser
                    ile
                                         thr
                                                lys
                                                              his
                                                                     lys
                                                                                  thr
                           cys
                                  cys
                                                       cys
                                                                           gly
tyr
       leu
             tyr
                     asn
                                  cys
                                                gly
                                                                     gln
                                                                                  thr
                           asp
                                         pro
                                                       pro
                                                              gly
                                                                           asp
             arg
asp
       cys
                    glu
                           cys
                                  glu
                                         ser
                                                gly
                                                       ser
                                                              phe
                                                                    thr
                                                                           ala
                                                                                  ser
glu
             his
                    leu
       asn
                                  his
                                                leu
                           arg
                                         cys
                                                       ser
                                                              cys
                                                                     ser
                                                                           lys
                                                                                  cys
       lys
             glu
arg
                    met
                           gly
                                  gln
                                         val
                                                glu
                                                       ile
                                                              ser
                                                                                  thr
                                                                    ser
                                                                           cys
val
             arg
                           thr
       asp
                    asp
                                  val
                                         cys
                                                gly
                                                       cys
                                                              arg
                                                                     lys
                                                                           asn
                                                                                  gln
             his
tyr
                    tyr
                                         glu
       arg
                           trp
                                  ser
                                                asn
                                                       leu
                                                             phe
                                                                    gln
                                                                                  phe
                                                                           cys
asn
      cys
             ser
                    leu
                                  leu
                                                              val
                                                                    his
                           cys
                                         asn
                                                gly
                                                       thr
                                                                           leu
                                                                                  ser
cys
      gln
             glu
                    lys
                           gln
                                  asn
                                         thr
                                                val
                                                       cys
                                                              thr
                                                                     cys
                                                                           his
                                                                                  ala
      phe
             phe
                    leu
gly
                                  glu
                           arg
                                         asn
                                                glu
                                                       cys
                                                              val
                                                                    ser
                                                                           cys
                                                                                  ser
             lys
                    lys
                                  leu
asn
       cys
                           ser
                                         glu
                                                cys
                                                       thr
                                                              lys
                                                                     leu
                                                                           cys
                                                                                  leu
       gln
             ile
                    glu
pro
                           asn;
```

or a C- and/or N- terminally shortened sequence thereof.

- 137. An isolated DNA molecule according to claim 136, wherein said polypeptide includes a methionine at the amino-terminus.
  - 138. A vector comprising a DNA molecule defined in claim 134.
  - 139. A vector comprising a DNA molecule defined in claim 135.
  - 140. A vector comprising a DNA molecule defined in claim 136.
  - 141. A vector comprising a DNA molecule defined in claim 137.
  - 142. A recombinant host cell comprising the vector of claim 134.
  - 143. A recombinant host cell comprising the vector of claim 135.
  - 144. A recombinant host cell comprising the vector of claim 136.
  - 145. A recombinant host cell comprising the vector of claim 137.
  - 146. A recombinant host cell of claim 142, which is a prokaryotic cell.
  - 147 A host cell according to claim 144, which is a prokaryotic cell.
  - 148. A host cell according to claim 146, which is Escherichia coli.
  - 149. A host cell according to claim 147, which is Escherichia coli.
  - 150. A host cell according to claim 142, which is a eukaryotic cell.

. . . ^

- 151. A host cell according to claim 144, which is a eukaryotic cell.
- 152. A host cell according to claim 150, which is a mammalian cell.
- 153. A host cell according to claim 151, which is a mammalian cell.
- 154. A host cell according to claim 152, which is selected from the group consisting of a Chinese Hamster Ovary cell and a COS cell.
- 155. A host cell according to claim 153, which is selected from the group consisting of a Chinese Hamster Ovary cell and a COS cell.
- 156. A recombinant host cell according to claim 140, wherein the recombinant DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having the ability to bind TNF, operatively linked to the DNA molecule coding for the polypeptide having the ability to bind to TNF.
- 157. A recombinant host cell according to claim 142, wherein the recombinant DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having the ability to bind TNF, operatively linked to the DNA molecule coding for the polypeptide having the ability to bind to TNF.
- 158. A process for preparing a polypeptide having the ability to bind TNF, comprising producing the polypeptide in a recombinant host cell according to claim 142 under suitable conditions to express the DNA molecule contained therein to produce the polypeptide, and recovering said polypeptide.
- 159. A process for preparing a polypeptide having the ability to bind TNF, comprising producing the polypeptide in a recombinant host cell according to claim 144 under suitable

conditions to express the DNA molecule contained therein to produce the polypeptide, and recovering said polypeptide.